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STATE DOCUMENTS

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A N N U A L R E P O R T  
O F T H E  
O F F I C E O F S T A T E F O R E S T E R

TO THE  
GOVERNOR OF MONTANA  
HONORABLE FORREST H. ANDERSON

For The  
Fiscal Year Ended  
June 30, 1970

Montana State Library



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The Honorable Forrest H. Anderson  
Governor  
State of Montana  
Helena, Montana 59601

Dear Governor Anderson:

In accordance with the requirements of Section 82-4002, R.C.M. 1947, there is herewith transmitted to you the report of the State Forester covering the fiscal year ended June 30, 1970.

As you know, the State Forester is responsible to two Boards--the State Board of Land Commissioners for the Management and Administration of the State-owned forest lands, and to the State Board of Forestry for Cooperative Programs dealing with the privately-owned forest lands within Montana.

Because it is more economical and efficient, in most instances the two responsibilities are met with one set of employees and the same equipment.

Our major accomplishments during the past biennium have been in Forest and Range Fire Prevention. Following opinions by the land-owners and the State in fire protection, and in carrying out your instructions as Governor and Chairman of the Forestry Board, a system through which all rural lands in Montana are protected from fire, is rapidly developing. All of Montana west of the Continental Divide is now protected, and fourteen counties east of the Divide are in the program, with several others anxious to come into the program as soon as we can expand to accommodate them.

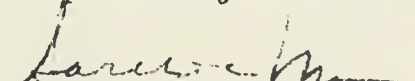
The Timber Management program for the State Forest Lands has continued to improve. Recommended investments in timber stand improvement on state forest lands as an excellent long range program for these lands will continue to pay off in the long run in both increased revenue to the State's school funds, and in high satisfaction to the people of Montana as owners of these lands.

The State Forester's Cooperative Forest Management program has continued to expand with 931 private forest owners requesting and receiving assistance during fiscal year 1970.

The forest tree nursery had its biggest production year in history with 1,421,050 small trees going to Montana farms and ranches for windbreak plantings and to other land owners for forest planting.

I am pleased to furnish this report of the Office of Montana State Forester.

Respectfully submitted

  
Gareth C. Moon  
State FORESTER

August 28, 1970



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P R I N C I P L E   O F F I C E S   A N D   O F F I C E R S

BOARD OF LAND COMMISSIONERS

OFFICER TERM OF OFFICE	HOME ADDRESS
Governor Forrest Anderson, Chairman 1-1-69 -- 12-31-72	2 Carson St., Helena 59601
Dolores Colburg, Supt. Public Instruction 1-1-69 -- 12-31-72	301 W. Lawrence, Helena 59601
Frank Murray, Secretary of State 1-1-69 -- 12-31-72	825 Hauser Blvd., Helena 59601
Robert Woodahl, Attorney General 1-1-69 -- 12-31-72	1402 Jerome Place, Helena 59601

ADMINISTRATIVE OFFICERS

Ted Schwinden, Secretary and Commissioner of State Lands  
and Investments

Gareth C. Moon, State Forester

STATE BOARD OF FORESTRY

Governor Forrest Anderson, Chairman 1-1-69 -- 12-31-72	2 Carson St., Helena 59601
John Baucus, Stock & Wool Growers Assns. 6-1-67 -- 6-1-71	Sieben Ranch, Helena 59601
Arnold Bolle, School of Forestry 8-5-69 -- 7-1-73	1630 Jackson, Missoula 59801
Clyde Hawks, Water Resources Board 8-5-69 -- 7-1-73	St. Xavier 59075
George Neff, Forest Protection Assns. 8-5-69 -- 7-1-73	Pine Grove, Missoula 59801
Neal M. Rahm, U.S. Forest Service, R-1 6-1-67 -- 6-1-71	1852-35th, Missoula 59801
Mark Schoknecht, Lumber Manufacturers 6-1-67 -- 6-1-71	Upland's Shevlin Park, Libby 59923
Hollis Young, Small Woodland Owners 8-5-69 -- 7-1-73	Bigfork 59911

ADMINISTRATIVE OFFICER

Gareth C. Moon, Secretary and State Forester

PRINCIPLE OFFICE

2705 Spurgin Road, Missoula, Montana 59801









## LEGAL REFERENCES

### GENERAL:

The Office of State Forester operates chiefly under two sets of State statutes. Generally, the responsibilities of the State Forester for the management of State-owned forest lands are covered under the 81-400, 81-1100, 81-1400, 81-1500, 81-1600 and 81-2000 sections, RCM 1947 as amended. The State Forester's responsibilities to privately owned lands are specified in the 28-100 sections.

Cooperation with the State Department of Institution in operation of the Swan River Youth Forest Camp is provided in Section 80-1412.

Section 77-1300 provides statutory guidance for participation of the State Forester in Civil Defense activities.

The aims and policies guiding the operation of the State Forester's Office in administering the statutory requirements are contained in several policy manuals prepared by the State Forester and approved by both the State Board of Land Commissioners and the State Board of Forestry.

### SPECIAL:

The Montana Statutes cited above provide direction and permission for obtaining assistance and for furnishing assistance, to and from various agencies, companies, and individuals. Written agreements provide guidance and control to the various programs.



FOREST MANAGEMENT PROGRAM:

In addition to the State Statutes governing the operation of the Forest Management program, assistance is received from Federal sources under the Title IV of the Agricultural Act of 1956 for qualifying timber stand improvement work on State-owned Forest lands.

By cooperating under provisions of the Cooperative Forest Management Act of 1950, federal funds assist in maintaining the State Forester's service forestry program to small private woodland owners, assist in financing the program through which help and advice is given processors of primary forest products, and also, by virtue of the existing Cooperative Forest Management agreement, federal funds are made available with which the State Forester participates in the Resource Conservation and Development program of Ravalli County.

Under Section 4, Clarke-McNary Act of June 7, 1924, as amended, federal assistance is provided for operation of the State Forester's tree nursery.

FOREST AND RANGE FIRE PREVENTION PROGRAM:

Fire Control on forested lands in Montana is governed by the Forest Fire Regulations promulgated by the State Forestry Board as provided in Section 28-105 (d).

The fire program is part of a national system of wildland fire protection supported by the federal government under Section 2 of the Clarke-McNary Act of 1924.

Many written agreements exist between the State Forester and other state and federal agencies, counties, fire protective associations and rural districts as an outline of fire prevention and protection responsibilities.





## P R I N C I P A L   G O A L S

As they pertain to State-owned lands, the objective of the State Board of Land Commissioners and of the State Forester are:

1. To hold the lands in trust for the support of education and for the attainment of other objectives helpful to the well-being of the people of Montana.
2. To administer this trust so as to secure the largest measure of legitimate and reasonable advantage to the State.
3. To accomplish a sustained income for the school and other trust funds.

The objectives of the State Board of Forestry and the State Forester are, in part:

1. To protect and conserve the forest resources and watersheds of the state from destruction by fire and from destruction by insects and disease.
2. To enhance the production of the forested lands.
3. To promote the stability of the forest industries.
4. To provide technical and practical assistance to private landowners of the state in respect to soil and forest conservation and the establishment and maintenance of woodlots and windbreaks.
5. To assist the Board of Land Commissioners in the protection, economic development and use of State Forests and forest lands held by the State for the benefit of the common schools and State institutions.



PROGRAM INVENTORY AND COST SUMMARY

<u>PROGRAM</u>	<u>COST</u> <u>1969-70 FY</u>
Department Operations. . . . .	\$ 139,452
Forest Management. . . . .	\$ 342,099
Forest and Range Fire Prevention . . . . .	\$ 744,883
Institution Forestry Work (SRYFC). . . . .	\$ 38,829
	<hr/>
TOTAL	\$ 1,265,263



## MAJOR ACCOMPLISHMENTS

### DEPARTMENT OPERATIONS:

During fiscal year ending June 30, 1970, the Operations Program placed the new Central Warehouse in operation for the State Forester's Office.

With no increase in personnel, 50% more claims were processed in 1970 than in 1967. (1478 to 2318)

A 10-year radio communications development plan covering 1972-1982 was completed.

Much work toward converting accounting procedures to Automatic Data Processing was completed in anticipation of completing the change-over during fiscal year 1971.





OFFICE OF MONTANA STATE FORESTER

DISTRIBUTION OF INCOME FROM STATE FOREST LANDS

Fiscal Year	Fiscal Year 1970							Total
	Montana State College	Montana State College Morrill	Deaf and Blind	Industrial School	E. Mont. Normal School	School of Mines	University	Common School

INCOME FUNDS *								
1970	\$392.39	\$ 8,641.18	\$ 1,378.35	\$ 2,043.91	\$483.02	\$ 4,538.74	\$166.46	\$ 16,068.69
PERMANENT FUNDS **								\$ 483.01
1970	\$675.13	\$97,935.11	\$23,688.12	\$42,772.51	---	\$62,453.28	---	\$31,198.15
CAPITOL BUILDING FUNDS ***								\$763,409.37
1970								\$ 66,681.01

Total fiscal year 1970 ..... \$864,286.13

\* INCOME FUNDS: 95% allocated to school and other State institutions: 5% of these credited to PERMANENT FUNDS.

\*\* PERMANENT FUNDS: Interest only on these funds expendable.

\*\*\* CAPITOL BUILDING FUNDS: 100% expendable upon deposit.



OFFICE OF MONTANA STATE FORESTER

DISTRIBUTION OF INCOME FROM STATE FOREST LANDS

Fiscal Year	Fiscal Year 1969							Total
	Montana State College	Montana State College Morrill	Deaf and Blind	Industrial School	E. Mont. Normal School	School of Mines	University School	

INCOME FUNDS \*

1969	\$ 365.21	\$8,312.28	\$1,351.04	\$1,964.02	\$492.33	\$ 4,463.77	\$ 148.17	\$ 16,175.39	\$ 492.30	\$ 33,764.51
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PERMANENT FUNDS \*\*

1969	\$2,020.03	\$ 220.00	\$1,017.83	\$99,655.85	---	\$75,554.56	\$2,729.76	\$1,093,356.71	\$35,689.35	\$1,310,244.09
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CAPITOL BUILDING FUNDS \*\*\*

1969	.....	.....	.....	.....	.....	.....	.....	.....	.....	\$ 125,861.03	
										Total Fiscal Year 1969 .....	\$1,469,869.63

\* INCOME FUNDS: 95% allocated to school and other State institutions: 5% of these credited to PERMANENT FUNDS.

\*\* PERMANENT FUNDS: Interest only on these funds expendable.

\*\*\* CAPITOL BUILDING FUNDS: 100% expendable upon deposit.



## MAJOR ACCOMPLISHMENTS

### FOREST MANAGEMENT PROGRAM

#### Achievements -- State Forest Land Management

Timber Management. During the fiscal year ended June 30, 1970, income from the State forest lands totaled \$864,286.13 as compared with \$1,469,869.63 the previous year. Most of this income is the result of timber sales, although some income is realized from special use authorizations and Christmas tree sales. During fiscal year 1970 total sawtimber sold from State forest lands was 28,219,062 board feet; in 1969 it was 46,696,389.

For the first time, permits for dead dry spruce were issued. The wood was used as pulpwood. The four permits averaged 400 cords each for material which heretofore has had no market.

During the year the State Forester's timber appraisal system was revised to more accurately reflect the true selling values of timber products. The value of wood chips, a newer product on the Montana scene, is now included in the appraisal system.

Accomplishment on State Forest Land under the Timber Stand Improvement portion of the Timber Management Program include:

	<u>FY1969</u>	<u>FY1970</u>
Planting		
Trees	116,300	150,875
Acres	331	851
Thinning		
Acres	286	350
Seedbed Site Preparations		
Acres	2,451	1,873





## MAJOR ACCOMPLISHMENTS

In the light of the growing concern of the public and the increasing demand for values other than wood, such as recreation opportunities and aesthetic quality, the State Forester has reviewed the past and current harvesting methods and is adjusting timber sale practices to fit more aesthetically into the landscape. Although clearcutting is a silviculturally sound method used to regenerate certain species, the public is demanding what it feels to be more aesthetically pleasing treatment.



OFFICE OF MONTANA STATE FORESTER

SAWTIMBER CUT FROM STATE FOREST LAND

FISCAL YEAR 1970

COUNTY	WHITE BARK PINE	WHITE PINE	PONDEROSA PINE	LARCH	DOUGLAS- FIR	SPRUCE	LODGEPOLE PINE	CEDAR	WHITE FIR	TOTAL GREEN	TOTAL DEAD
Beaverhead	--	--	--	--	107,290	4,510	1,550	--	1,060	114,410	.080
Flathead	79,590	998,840	.480	2,637,750	1,557,990	11,048,070	495,530	56,370	1,370,280	18,350,140**	566,630
Gallatin	--	--	--	--	100,000	--	--	--	--	100,000	--
Granite	--	--	13,180	1,270	19,580	--	2,180	--	--	36,210	--
Lake	--	116,910	43,330	629,120	385,730	84,520	56,640	361,790	31,660	1,709,700	574,480
Lewis & Clark	--	--	26,290	--	303,120	41,210	196,610	--	.900	568,130	22,910
Lincoln	--	11,220	288,090	143,100	225,790	10,150	37,290	11,430	4,370	869,060**	74,320
Mineral	--	.170	90,680	54,730	92,450	1,940	2,166,335	--	2,620	2,408,925	.030
Missoula	.370	--	715,380	34,080	1,095,440	2,590	9,037	--	2,370	1,859,267	668,870
Powell	--	--	30,670	--	--	--	--	--	--	30,670	--
Ravalli	--	--	67,950	--	111,060	.210	.110	--	.040	179,370	.570
Sanders	--	5,030	18,250	10,400	32,700	--	8,690	.400	9,710	85,180	.110
TOTALS	79,960	1,132,170	1,294,300	3,510,450	4,031,150	11,193,200	2,973,972	429,990	1,423,010	26,311,062	1,908,000

\*\*Includes 137,620 bd. ft. Hemlock and  
105,240 bd. ft. Cottonwood

Total Volume Green and Dry - 28,219,062 bd. ft.



OFFICE OF MONTANA STATE FORESTER

SAWTIMBER CUT FROM STATE FOREST LAND

FISCAL YEAR 1969

COUNTY	WHITE BARK PINE	WHITE PINE	PONDEROSA PINE	LARCH	DOUGLAS- FIR	SPRUCE	LODGEPOLE PINE	CEDAR	WHITE FIR	TOTAL GREEN	TOTAL DEAD
Flathead	.430	545,700	--	4,387,660	3,026,632	8,272,850	672,290	72,440	849,840	17,827,842	500,037
Lake	--	881,050	594,240	4,718,350	3,896,500	1,415,470	210,680	557,060	445,070	12,718,420	387,570
Lincoln	--	145,050	1,396,600	3,189,910	2,480,160	1,018,560	375,550	4,760	1,039,280	9,649,870	220,780
Lewis & Clark	--	--	252,330	--	1,531,980	44,660	1,101,920	--	1,200	2,932,090	41,880
Missoula	--	--	1,358,250	9,580	339,280	640	--	--	140	1,707,890	5,190
Ravalli	--	--	240,170	--	207,560	--	730	--	970	449,430	11,490
Sanders	--	--	43,260	31,900	53,690	140	7,230	--	3,240	187,860**	710
Sweetgrass	--	--	28,580	--	--	--	--	--	--	28,580	--
Mineral	--	--	14,790	1,930	9,380	--	430	--	220	26,750	--

TOTALS	.430	1,571,800	3,928,220	12,339,330	11,545,182	10,752,320	2,368,830	634,260	2,339,960	45,528,732	1,167,657
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\*\*Includes 48,400 bd. ft. Cottonwood

Total Green and Dry - 46, 696,389 bd. ft.





## OFFICE OF MONTANA STATE FORESTER

CHRISTMAS TREES CUT BY COUNTIES

Fiscal Year 1970

COUNTY	NO. OF PERMITS	NO. OF BALES	UNIT AVERAGE PRICE	STUMPAGE
FLATHEAD	29	8,400 4/24	\$.83	\$ 7,010.44
LAKE	4	1,089 7/24	.70	762.54
LEWIS & CLARK	1	12 18/24	.70	8.93
LINCOLN	9	3,522	.87	3,078.62
POWELL	3	299	.70	210.00 (L.O.)
RAVALLI	1	214 8/24	.70	150.04
SANDERS	7	1,064 7/24	1.33	1,416.45
	54	14,601 20/24		\$12,637.02

BOUGH PERMITS

FLATHEAD COUNTY	7 permits	13.06 tons = \$96.70
LAKE COUNTY	<u>1 permit</u>	<u>7.94 tons = 55.58</u>
	8 permits	21.00 tons = \$152.28



## OFFICE OF MONTANA STATE FORESTER

CHRISTMAS TREES CUT BY COUNTIES

Fiscal Year 1969

COUNTY	NO. OF PERMITS	NO. OF BALES	UNIT AVERAGE PRICE	STUMPAGE
FLATHEAD	25	6,959 19/24	\$.71	\$ 4,962.18
LAKE	3	905 16/24	.73	904.00
LINCOLN	16	5,454 10/24	.80	4,373.15
LEWIS & CLARK	1	16 15/24	.60	9.98
MINERAL	1	141 8/24	1.27	179.00
MISSOULA	1	340	.60	204.00
RAVALLI	2	333 16/24	.60	210.00
SANDERS	4	366 18/24	.73	268.80
	53	14,518 6/24		\$11,111.11

BOUGH PERMITS

Flathead County - 3 tons \$21.00



PERMANENT RIGHTS-CF-WAY APPROVED BY THE STATE BOARD OF LAND COMMISSIONERS  
AS RECOMMENDED BY THE STATE FORESTER

JULY 1, 1968 - JUNE 30, 1970

PURPOSE	NUMBER GRANTED	ACREAGE	LAND VALUE	INGROWTH TIMBER	TIMBER VALUE
Roads and Highways	30	152.591	\$3,348.11	\$2,832.55	\$4,837.50
Power and Telephone Lines	16	18.881	188.81	257.62	446.01
Pipe Lines	3	2.020	20.20	-	111.00
Reservoir	1	35.780	357.80	-	361.60
Slide Land, Parking Area, Trail Live- stock Underpass, Correct and Prevent Sloughing Road Maintenance U.S. Highway	4	21.942	292.97	353.00	-
TOTALS	54	231.214	\$4,207.89	\$3,443.17	\$5,756.11





## OFFICE OF MONTANA STATE FORESTER

STATE FOREST LAND USE AUTHORIZATIONS

Fiscal Year 1970\*

<u>No. of Land Use</u> <u>Authorizations</u>	<u>Use</u>	<u>Rental</u>
371	Cabinsites	\$ 13,640.00
232	Residences	8,745.00
338	Grazing	13,186.41
16	Cutting Hay	500.12
6	Agriculture	136.00
2	Ski Runs	50.00
2	School Houses	No Charge
5	Tourist Camps and Stores	295.00
6	Sawmill Sites & Trailers	465.00
4	Public Campgrounds	50.00
1	Restaurants, Service Stations	110.00
15	Beacon Light, Access Lookout for Access Fire Station, Television Distributing Cable, Relay Station and Maintenance Radio	141.00
3	Rifle Ranges	140.00
4	Recreation Summer Camps, Church Development Area	250.00
4	Use of Water, Irrigation Reservoir, etc.	36.60
14	Maintenance Building County Equipment Ground Oil Mix Stockpile, Powder Cache, Boat Landing, Construction and Maintenance Parking Lot, Hunting Lodge, Dump Site and Education Site, Leaching Pond	300.00
<u>26</u>	Cooperative Grazing	<u>640.75</u>
1,023		\$ 38,685.88

\* Figures reflect June 30, 1970. Because authorizations are renewed at different times, totals may not coincide with other records.



## MAJOR ACCOMPLISHMENTS

### FOREST MANAGEMENT PROGRAM

#### Achievements -- Private Forest Land Management

Service Forestry Project - During the biennium, 931 forest land owners were provided assistance in management problems; 494 were serviced in 1970. This help included preparation of management plans, servicing of Agricultural Conservation Program participation to check feasibility and compliance, providing instructions in marking timber for sale, and locating markets for approximately 3 million board feet of timber cut from small holdings.

Several tours were arranged and conducted for farmers and ranchers owning small timbered areas to show proper Christmas tree and forest management techniques.

Management plans for a watershed area near Lewistown and one near White Sulphur Springs were prepared during the year.

Studies were made to determine the feasibility of using round wood (tree stems or boles) to produce chips for a paper pulp plant. It was learned that the high cost of handling small logs make such a project uneconomical at the present time in most areas in Montana.

As a result of studies conducted in the Thompson Falls area, the Green Mountain Soil Conservation District is planning to purchase a chipper for slash disposal purposes on private lands.

Through cooperative efforts of the Service Foresters, 24 tree farms, totaling 13,537 acres, have been enrolled in the program sponsored by the forest industries. This brings Western Wood Products Association Tree Farm total in Montana to 79 farmers, owning 1,051,244 acres, all of which are dedicated to producing forest crops under good management practices.



## MAJOR ACCOMPLISHMENTS

### FOREST MANAGEMENT PROGRAM

#### Achievements - Private Forest Land Management

Forest Products Utilization - Although the forest industry is one of the major producers of revenue and livelihood in Montana, it is a rather loosely knit group and capabilities among the producers of forest products vary greatly. Designed mainly to provide guidance, assistance, and to serve as a communications media, the Forest Products Utilization program during fiscal year 1970 conducted five educational workshops attended by 144 Montana forest industry people. During the same period 19 other educational programs, demonstrations, and tours were conducted. Five radio-TV programs and four human-interest news stories were released.

A major portion of forest products utilization work during the biennium was spent in working with smaller sawmills regarding air pollution standards--more specifically tepee burner standards--and assisting with information to aid the operators in meeting the efficiency requirements specified by Montana Air Pollution Controls.

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## MAJOR ACCOMPLISHMENTS

### FOREST MANAGEMENT PROGRAM

#### Achievements

Seedling Tree Nursery. During fiscal year 1970, the State Forester produced and sold 1,421,050 seedling trees, of which 912,450 were conifers, for planting in the forest. This compares to 1,124,850 in 1969 when 497,650 were evergreens. Over a half-million broadleaved seedlings were sold in fiscal year 1970 to 698 farmers and ranchers, in all but two counties in the State, for windbreak and shelterbelt plantings. The nursery produced thirteen different species of hardwood seedlings and five different species of conifer.

A new piece of equipment for grading and processing conifer seedlings, consisting of a large 8-foot diameter, electric, hydraulically driven, "lazy-susan" type table was developed in the State Forester's Equipment Development Center in Missoula. This table incorporates a root-pruner, a mist spray to keep roots moist, slots for sorting and grading trees, and a transport for removing cull seedlings from usable stock. As a consequence, this equipment speeds the process, assures better grading, and increases over-all quality of stock.



## OFFICE OF MONTANA STATE FORESTER

## 1970 TREE DISTRIBUTION REPORT

Species	Age Class	Montana Farm	Montana Non-Farm	State, Industry Indian Agencies	Total In-State	Out-of-State	Total Sold
Honeysuckle	2-0	9,900	500	900	11,300	15,500	26,800
Lilac	2-0	6,600		50	6,650		6,650
Sandcherry	1-0	9,900	1,900	1,000	12,800	5,000	17,800
Skunk Sumac	2-0	600		250	850		850
Buffaloberry	2-0	8,700	1,800	300	10,800	15,000	25,800
Purple Willow	R.C.	2,550		650	3,200		3,200
Golden Willow	R.C.	14,200	50	100	14,350	4,500	18,850
White Willow	R.C.	3,200		150	3,350		3,350
Cottonwood (Robusta)	R.C.	8,500	1,000	150	9,650		9,650
Cottonwood (Roundup)	R.C.	3,050		100	3,150		3,150
Caragana	3-0	290,950	10,000	2,500	303,450	15,000	318,450
Green Ash	2-0	17,400	1,150		18,550	15,000	33,550
Russian Olive	1-0	15,800	400	200	16,400		16,400
Siberian Elm	2-0	17,050			17,050		17,050
Ponderosa Pine (Msla)	2-0	19,600	200	70,700	90,500	7,000	97,500
Ponderosa Pine (T.R.)	2-0			166,275	166,275		166,275
Ponderosa Pine (C & S)	1-0			51,200	51,200		51,200
Ponderosa Pine (East)	1-2	6,650			6,650		6,650
Ponderosa Pine (East)	2-2	4,425			4,425		4,425
Douglas Fir (Huson)	2-0	20,000			20,000		20,000
Douglas Fir (Kootenai)	2-0	5,125		85,050	90,175		90,175
Douglas Fir (Alberton)	2-0	5,175			5,175		5,175
Douglas Fir (Msla)	2-0	9,450	20,025		29,475		29,475
Douglas Fir (East)	2-2	700			700		700
Colo. Blue Spruce	2-2	17,150	400		17,550		17,550
Colo. Blue Spruce	2-0	950			950		950
Juniper	1-2	575	25	50	650		650
Scotch Pine	2-0	6,000			6,000		6,000
Scotch Pine	2-2	11,400	50		11,400		11,450
Eng. Sp. (Morman Cr)	2-0			10,450	10,450		10,450
Eng. Sp. (Flathead)	2-0	300	4,000	183,100	187,400		187,400
Larch	1-0			72,100	72,100		72,100
Larch	2-0	800	2,000	34,625	37,425		37,425
Lodgepole Pine	2-0			23,950	23,950		23,950
Larch U.S.F.S.	1-0			80,000	80,000		80,000
TOTALS		516,700	43,500	783,850	1,344,050	77,000	1,421,050





# OFFICE OF MONTANA STATE FORESTER

## 1970 Montana Farm Tree Sales by Counties

<u>County</u>	<u>No. of Trees</u>	<u>County</u>	<u>No. of Trees</u>
Beaverhead	550	Madison	3,500
Big Horn	2,900	Meagher	1,400
Blaine	3,000	Mineral	5,100
Broadwater	1,775	Missoula	7,325
Carbon	5,800	Musselshell	650
Carter	6,600	Park	4,700
Cascade	25,875	Petroleum	None
Chouteau	28,525	Phillips	10,725
Custer	3,300	Pondera	4,300
Daniels	21,000	Powder River	950
Dawson	8,875	Powell	700
Deer Lodge	None	Prairie	1,100
Fallon	5,525	Ravalli	12,475
Fergus	11,325	Richland	4,725
Flathead	18,650	Roosevelt	20,550
Gallatin	18,975	Rosebud	1,550
Garfield	1,950	Sanders	40,750
Glacier	11,325	Sheridan	5,625
Golden Valley	4,125	Silver Bow	500
Granite	1,300	Stillwater	1,725
Hill	50,075	Sweet Grass	1,950
Jefferson	3,425	Teton	14,050
Judith Basin	8,200	Toole	56,425
Lake	4,000	Treasure	300
Lewis & Clark	6,925	Valley	8,825
Liberty	41,300	Wheatland	875
Lincoln	1,450	Wibaux	4,850
McCone	3,400	Yellowstone	925
		Total	516,700

### Top 10 Counties

1.	Toole	56,425
2.	Hill	50,075
3.	Liberty	41,300
4.	Sanders	40,750
5.	Chouteau	28,525
6.	Cascade	25,875
7.	Daniels	21,000
8.	Roosevelt	20,550
9.	Gallatin	18,975
10.	Flathead	18,650

### Other 1970 Sales

State, Industry and Indian Agencies	783,850
Surplus sold in and out of state	120,500
Total of all 1970 sales	1,421,050





## OFFICE OF MONTANA STATE FORESTER

## 1969 TREE DISTRIBUTION REPORT

Species	Age Class	Montana Farm	Montana Non-Farm	State, Industry Indian Agencies	Total In-State	Out-of-State	Total Sold
Honeysuckle	2-0	14,600	400	1,050	16,050	22,000	38,050
Lilac	2-0	7,550	100		7,650		7,650
Sandcherry	1-0	12,650	1,500	1,250	15,400		15,400
American Plum	1-0	7,400	500	400	8,300		8,300
Purple Willow	R.C.	2,300		650	2,950		2,950
Siberian Crabapple	1-0	6,900	200	900	8,000		8,000
Golden Willow	R.C.	13,900		4,050	17,950		17,950
White Willow	R.C.	4,250		3,250	7,500		7,500
Cottonwood (Siouxland)	R.C.	11,450		250	11,700		11,700
Cottonwood (Robusta)	R.C.	4,400		250	4,650		4,650
Cottonwood (Roundup)	R.C.	200		2,450	2,650		2,650
Cottonwood (Native)	R.C.			250	250		250
Blanking Cherry	1-0	1,100			1,100		1,100
Chokecherry	1-0	3,900	100	50	4,050		4,050
Caragana	2-0	331,650	14,500	9,400	355,550		355,550
American Elm	2-0	4,900	50	350	5,300		5,300
Green Ash	2-0	16,000	1,700	350	18,050		18,050
Russian Olive	1-0	41,900	4,900	2,600	49,400		49,400
Siberian Elm	2-0	28,300	700	1,400	30,400		30,400
Ponderosa Pine (West)	2-0	3,150		168,500	171,650		171,650
Ponderosa Pine (East)	2-0	7,875		10,775	18,650		18,650
Ponderosa Pine (East)	2-2	5,100		250	5,350		5,350
Douglas Fir (West)	3-0	2,450		13,500	15,950		15,950
Douglas Fir (West)	2-0			14,875	14,875		14,875
Douglas Fir (East)	2-0			7,175	7,175		7,175
Douglas Fir (East)	2-2	3,675		6,625	10,300		10,300
Colo. Blue Spruce	2-3	26,050	600	13,000	39,650		39,650
Juniper	1-2	9,075	250	1,025	10,350		10,350
Scotch Pine	2-0	39,325		1,050	40,375	38,300	78,675
Engelmann Spruce	2-0			106,775	106,775		106,775
Larch	2-0	100		38,525	38,625		38,625
Lodgepole Pine	2-0			17,925	17,925		17,925
TOTALS		610,150	25,500	428,900	1,064,550	60,300	1,124,850



OFFICE OF MONTANA STATE FORESTER

1969 Montana Farm Tree Sales by Counties

<u>County</u>	<u>No. of Trees</u>	<u>County</u>	<u>No. of Trees</u>
Beaverhead	625	Madison	1,650
Big Horn	4,900	Meagher	2,000
Blaine	9,025	Mineral	400
Broadwater	400	Missoula	4,025
Carbon	7,325	Musselshell	1,275
Carter	10,075	Park	10,500
Cascade	20,375	Petroleum	1,100
Chouteau	29,125	Phillips	9,775
Custer	4,325	Pondera	7,625
Daniels	36,950	Powder River	3,750
Dawson	35,325	Powell	1,475
Deer Lodge	1,025	Prairie	6,825
Fallon	7,875	Ravalli	6,550
Fergus	14,250	Richland	7,300
Flathead	18,275	Roosevelt	75,150
Gallatin	16,200	Rosebud	1,250
Garfield	1,750	Sanders	11,825
Glacier	8,025	Sheridan	18,050
Golden Valley	1,325	Silver Bow	675
Granite	100	Stillwater	7,575
Hill	28,525	Sweet Grass	2,050
Jefferson	3,475	Teton	11,900
Judith Basin	4,950	Toole	67,000
Lake	6,400	Treasure	None
Lewis & Clark	7,225	Valley	11,725
Liberty	31,700	Wheatland	1,075
Lincoln	1,800	Wibaux	6,150
McCone	7,025	Yellowstone	13,100
		Total	610,150

Top 10 Counties

1.	Roosevelt	75,150
2.	Toole	67,000
3.	Daniels	36,950
4.	Dawson	35,325
5.	Liberty	31,700
6.	Chouteau	29,125
7.	Hill	28,525
8.	Cascade	20,375
9.	Flathead	18,275
10.	Sheridan	18,050

Other 1969 Sales

State, Industry and Indian Agencies	428,900
Surpluses sold in and out of State	85,800
Total of all 1969 Sales	1,124,850





## MAJOR ACCOMPLISHMENTS

### FOREST AND RANGE FIRE PREVENTION

#### Achievements -- Forest and Range Fire Prevention

##### Presuppression -- Office of State Forester Direct Protection

The year ending June 30, 1970, saw the establishment and bringing into full operation the Fire Coordination Center in the State Forester's Office Building in Missoula, which keeps an accurate and complete record of the state-wide forest fire situation and coordinates the activities of all fire fighting groups throughout Montana. It is set up to assist in movement of supplies, materials, and manpower to on-the-ground fire fighting organizations.

During the fire season 399 forest fires were controlled, with the area burned held to 1,716 acres. In number of fires, 1969 ranked 5th, and in area burned ranked 8th, in the last ten years.

During the 1970 fiscal year the State Forester's Office began work with the Fish and Game Department to train and equip Fish and Game Department personnel for fire duty.

An organized and equipped forest fire suppression team was formed at the Montana State Prison in Deer Lodge. A special team of Swan River Youth Forest Camp enrollees was set up to be used by the State Forester in the Kalispell - Swan Lake Area.

Aerial Patrol was instituted to provide additional and more rapid detection of forest fires in conjunction with fixed ground fire lookout stations with no increase in detection costs.

Converted excess military property has for many years been the base for the State Forester's fire suppression work on areas of direct protection. Much of the lighter initial attack equipment has been





## MAJOR ACCOMPLISHMENTS

phased out in favor of standard equipment for which repair parts are more readily obtained.

Following the request of the Northern Montana Forestry Association in the Kalispell area to be relieved of fire suppression responsibilities, and by direction of the State Board of Forestry, the State Forester's organization made ready to assume fire responsibilities on an additional one and one-half million acres of forest land, on July 1, 1970.

The State Forester continued two forest fire prevention programs: The Cooperative Forest Fire Prevention Program (Smokey Bear), and the Keep Montana Green program.

Under the new Rural Fire Program the State Forester during 1970 fiscal year worked out cooperative fire control programs with thirteen counties following a pilot program with Meagher County. This program provides fire fighting units of equipment, fire training sessions, with the counties assuming operation of the county fire protection program. The State Forester upon request of the cooperating counties will supply trained fire suppression experts in times of emergency.

In addition to the rural and county units assisted, the State Forester was instrumental in the formation of the Bridger Forest Fire District northwest of Bozeman, with the Gallatin National Forest providing the protection to the State and private lands within the unit.

Two new volunteer fire departments have been placed into operation and organizational work is in progress on 10 new fire departments. These departments are being organized in areas which previously had no fire protection and little possibility of obtaining protection.



## MAJOR ACCOMPLISHMENTS

The State Forester's Equipment Development Center converted 14 excess military vehicles to rural fire fighting units during the year. These units either form the nucleus for County fire fighting units or provide a supplement to them.



## MAJOR ACCOMPLISHMENTS

### INSTITUTION FORESTRY WORK (Swan River Youth Forest Camp)

The Swan River Youth Forest Camp on June 30, 1970, completed its second full year of operation. The State Forester is responsible for the work program on the Swan River State Forest. The number and scope of work projects completed during fiscal year 1970 is formidable.

Twenty-two thousand seedling trees grown in the State Forestry Nursery in Missoula were planted on 400 acres of recently logged over areas. Planting projects accounted for 146 man-days.

Camp crews continued a thinning program begun the year before, spending 246 man-days in thinning a stand of overstocked Douglas fir-western larch.

In a 37 man-day project, more than 400 fence rails and posts were cut, peeled, and stacked for seasoning.

One hundred thirteen man-days were used in brushing out (clearing after winter snowfall bends trees over the road) about 300 miles of primary and secondary road on the Swan River State Forest.

All members of the Camp are trained as fire fighters. During the fiscal year 1970 thirty-two man-days were devoted to fire suppression training and 61 man-days were spent in the actual suppression of fires.

Two small campgrounds on the Swan River State Forest, were maintained and 95 man-days were spent in developing an area to be used by Camp personnel. The Sperry Grade Station and grounds located on the Clearwater State Forest were also maintained. A major project was the maintenance of State Forestry Headquarters in the Swan River State Forest - 241 man-days.





## MAJOR ACCOMPLISHMENTS

The Youth Forest Camp carpentry crew turned out a miscellaneous array of projects: bulletin boards, map racks, bookcases, cupboards, pickup truck boxes, and picnic tables. The Swan River State Forest Station bunkhouse was converted into a carpentry shop. Notable among the projects completed by the crew was the construction of shelves and tire racks in the Missoula Central Warehouse, and two especially designed fire dispatch and communication center desks for Missoula and for Kalispell State Forestry offices. Completed carpentry shop projects during the year are estimated at a value of \$8,915 to the State.

The Youth Forest Camp crews constructed and installed both large and small entrance signs for the University of Montana Forestry School's Lubrecht Experimental Forest. One hundred forty-two small signs were produced and installed on the State Forests.

Under State Forestry supervision, the Youth Forest Camp carpentry shop constructed "stations" for a "Braille Trail" to be used by blind children in studying trees and shrubs at the State School for the Blind and Deaf in Great Falls. On Arbor Day the Youth Forest Camp crew lifted five small Ponderosa Pine--Montana's State Tree--and transplanted them to the Braille Trail as the first project in what is planned as an annual event.

In all the projects, the State Forestry foremen keep in mind that safety, proper training and rehabilitation of the boys are the real important phases of the job.





## MAJOR RECOMMENDATIONS

PROGRAM: FOREST AND RANGE FIRE PREVENTION

REQUIRED IMPLEMENTATION: APPROPRIATION

PRIORITY RATING: ONE OF TWO

CATEGORY: INCREASING EXISTING SERVICES

Recommendation: The State of Montana should continue to meet its responsibilities in fire control which directly and indirectly affects all Montanans and the natural renewable natural resources, both state and privately owned lands. The State Forester's fiscal year 1972 and 1973 budget request will make it possible to meet this responsibility at a reasonable and desirable level.

Discussion: The State Forester presently provides fire protection directly to (a) 2,500,000 acres, and, through cooperative programs, to (b) 15,000,000 acres.

(a) Direct Fire Protection: Due to a combination of circumstances the private forest fire protection agencies, of which three existed in Montana until four years ago, have one by one come to the State Board of Forestry to request that they be relieved of forest fire suppression responsibilities. In 1967, the Anaconda Forest Protection Association turned over its responsibilities to the State Forester, with approval of the State Board of Forestry. This move increased the acreage for which the State Forester was directly responsible from 500,000 acres to 800,000 acres. On July 1, 1970, the State Forester, at the request of the Northern Montana Forestry Association and the State Board of Forestry, assumed the fire suppression responsibilities of the Northern Montana Forestry Association which increased the acreage for which the State



## MAJOR RECOMMENDATIONS

Forester is directly responsible to 1,500,000 acres. By action of the Board of Directors of the Blackfoot Forest Protective Association in December 1969, and at the request of the State Board of Forestry, the State Forester will assume, on July 1, 1971, the fire suppression responsibilities of the Blackfoot Forest Protective Association, an area of 1,000,000 acres, which will bring the State Forester's area of direct fire suppression responsibility to 2,500,000 acres.

On July 1, 1971, when the State Forester assumes the responsibilities of fire protection on the areas now protected by the Blackfoot Forest Protective Association, the landowners who paid protection assessments directly to the Associations prior to the fire season will pay them through the tax-roll media a year late, meaning that a gap of \$95,000 will exist in income for fire protection. Since this situation will only occur once this amount is included in the 1972 budget request.

It is now obvious that the only successful way to combat forest and range fires, efficiently and effectively within reasonable cost limitations, is through maintenance of a highly mobile, hard hitting fire fighting organization. This requires good radio communications, mobile fire fighting equipment, and well trained crews.

(b) Cooperative Fire Protection: The 1969 Legislature provided the means by which the State Forester will develop a cooperative program to provide fire protection to forest, wild, and rural lands in Montana. This program is worked on a cooperative basis with the counties. During the past two years, agreements have been made between the State Forester and 13 counties and cover approximately 15,000,000 acres.

Studies show that an additional estimated 35,000,000 acres of forest, wild, and rural lands require protection which can be provided



## MAJOR RECOMMENDATIONS

through similar cooperative agreements with the counties. The State Forester would provide fire fighting units made from excess military heavy duty trucks, complements of hand tools, organization experience, fire fighting instruction, and the loan of trained expert advisers in times of emergency.

The State Forester's budget request covers expansion of this program by including a 2¢ per acre matching fee in the amount of \$119,775 with which to match county program receipts for protection of state and private lands within the cooperating counties.





## MAJOR RECOMMENDATIONS

PROGRAM: FOREST MANAGEMENT

REQUIRED IMPLEMENTATION: APPROPRIATION

PRIORITY RATING: TWO OF TWO

CATEGORY: INCREASING EXISTING SERVICES

Recommendation: The addition of a forest entomologist, a soils man, a forest engineer, a landscape architect and a hydrologist to the State Forester's staff should be approved.

Discussion: As the value of our forest lands increase not only for timber production, but for the production of abundant pure clean water, and outdoor recreational uses of all kinds, and as the public becomes more critical of the management practices related to state forest lands, it is becoming vital that specialists in certain fields be employed to advise and assist the foresters: the entomologist to advise on acceptable methods of controlling forest pest outbreaks, the soils man to advise on the affect of soils on proposed silvicultural systems, the hydrologist to advise on water situations and how they may be enhanced by logging operations, an engineer to provide better logging and fire protection road layouts, and the landscape architect to assist in road layouts and in shaping and locating timber sale areas to keep them aesthetically within limits acceptable by the public.

These positions would also be used extensively in the State Forester's Cooperative Forest Management Program to advise and assist the farmer and rancher forest land owners, meet and solve their forest problems.



DETAILED   REVIEW



## A N A L Y S I S   O F   P R O G R A M S

### DEPARTMENT OPERATIONS

Services Provided. Guides all activities in forming, managing and directing all activities of the Office of State Forester, and takes care of the day to day administrative duties of the Department. Formulates plans and programs; develops and enforces policies and standards; selects and makes purchases and keeps property inventories. Maintains all records and reports required by State Government, cooperating agencies, and individuals of operations for the Office of State Forester.

Objectives. The purpose of Operations is, one, to integrate all program planning and financial support; two, to direct the use of real estate, equipment, and manpower in a coordinated manner; and, three, to maintain records and provide needed reports to keep the State Forestry Department running smoothly.

Target Groups. Other State Forestry programs and their personnel; other Montana state government agencies; cooperating federal agencies; cooperating firms and individuals.

Achievements. A long and much needed facility, a central Warehouse for storing items during off season, and a place from which use of many items can be scheduled, was placed in operation during fiscal year 1970.

The clerical force was consolidated for more efficient functioning which permitted processing of 50% more claims in 1970 than in 1967 with same clerical force.

A 10-year radio communications development plan covering 1972-1982 was completed,





## A N A Y L S I S   O F   P R O G R A M S

Much work toward converting accounting procedure to Automatic Data Processing was completed and equipment installed during the past year anticipating the change-over during fiscal year 1971.

Cost Summary. The following data is presented in summary form. Additional supporting data is available upon request.

### FISCAL YEARS

	Historic <u>1968-69</u>	Current <u>1969-70</u>	Projected <u>1970-71</u>
COST	\$ 125,999	\$ 139,452	\$ 153,228



FOREST MANAGEMENT

Service Provided. (a) The State Forester manages the State-owned classified forest lands for the maximum sustained income for the school and other trust funds, attainable under management compatible with the Multiple Use Concept. He plans and allows for special uses of State Forest Lands where sufficient revenue or other worthy benefits justify adjustments in primary uses. He improves the condition of the State-owned forest grazing lands to increase their benefit as grazing areas and permits regulated grazing use when grazing is not in conflict with the primary use of growing trees.

(b,c) Private Forest Land Management. The Office of State Forester assists private landowners and associated groups in developing, protecting, and enhancing the management and conservation of forest and related resources, and in promoting the stability of forest industries within the State.

(d) Independently and by cooperating with others, adapts and carries out measures to protect the state and private forest land resources from damage or destruction by insects and disease.

(e) The State Forester maintains a forest tree nursery to produce and distribute seedling trees and shrubs for forest, windbreak, shelter-belt, wildlife and other conservation plantings on state and privately owned lands within the state.

Objectives. (a) Studies show that 35 million board feet can be cut annually on a sustained yield basis from state lands. The objectives of management of state-owned classified forest lands are to: (1) To remove annually the current growth plus mortality in such manner that the residual stands will remain in a thrifty, productive, or reproducing



condition. (2) To employ cutting practices which will remove mature and overmature timber on a silviculturally sound basis to provide for regeneration. (3) To improve the productivity and composition of young stands of timber; (4) to reforest non-stocked forest lands; (5) to salvage fire-killed, blowdown, and insect timber as loss occurs; and (6) to promote expansion of timber industry by raising productivity of State Forest Lands.

(b) The objectives of Private Forest Land Management are to

- (1) Maintain and improve the productivity of privately owned timber lands;
- (2) Integrate the management of these lands with other farm crop lands;
- (3) Increase owner income; and (4) Maintain a continuous flow of raw forest products to stabilize industry.

Target Groups. All the citizens of Montana share, in a way, the ownership of State Lands, and as such are concerned with the management of them. Of particular concern are those who use the State Forests-- as purchasers of timber, as licencees for livestock grazing, as summer home or residence site users, as water users, or as recreationists.

Fourteen thousand individuals hold small woodland ownerships and are potentially in need of forestry advice and services. The processors of forest products are also a group being served by our program. The tree nursery provides trees for farm and ranch windbreak plantings, making farmers and ranchers throughout the state, as well as forest managers and owners, target groups.

Achievements. From State forest lands, 28,219,002 board feet of timber were cut, bringing \$813,421.35 to the State school fund. More than 150,875 seedling trees from the State Forest Nursery were planted on 581 acres of State Forest land. Three hundred fifty acres were thinned. Seed beds prepared for natural reseeding, 1,873 acres.





During 1970, 14,602 bales of Christmas trees sold from State Forest Lands brought \$12,637.02 to school funds. Special uses such as grazing and summer homes, brought \$31,886.65 to the State. Over 6,750 cords of dead material and cull green material was salvaged as pulpwood--an operation that is expected to expand. The State Forester's Timber Appraisal Guide was revised to more accurately reflect true selling values.

In the field of private forest land management, 521 requests for forestry assistance were received by the service foresters, and 494 were serviced. They assisted landowners in selling nearly 3 million (2,987,000) board feet of lumber for a return of \$66,234. They also assisted in development of acceptable sawmill teepee burner standards and conducted three management workshops for wood processors which were attended by 144 operators. Production in the State Forester tree nursery was increased from 1,124,850 in fiscal year 1969 to 1,421,050 in 1970, with conifers being 365,800 in 1969, and 871,125 in 1970. A new counting and grading table for coniferous seedlings was constructed in 1970. The State Forester supplied the forestry portion of the Beartooth Rural Conservation and Development Plan; participated in the Ponderosa Pine Tree Improvement Program, and encouraged the Tree Farm Movement. The forestry portion of two watershed plans--Newlan Creek near White Sulphur Springs and Big Spring Creek near Lewistown, were prepared by the State Forester's Office in 1970.

Cost: The following data is presented in summary form. Additional supporting data is available upon request:

<u>FISCAL YEARS</u>			
	Historic <u>1968-69</u>	Current <u>1969-70</u>	Projected <u>1970-71</u>
COST	\$ 269,689	\$ 342,099	\$ 379,710



FOREST AND RANGE FIRE PREVENTION:

Services Provided: The Office of State Forester provides leadership in fire prevention, presuppression, and suppression, in order to have economical, efficient, and acceptable protection from fire for the State and privately owned forest and rural lands.

The State Forester participates in the Cooperative Forest Fire Prevention Program (Smokey Bear) jointly sponsored by the National Association of State Foresters and the U. S. Forest Service, and contributes leadership and planning to the Keep Montana Green Program, a fire program financed by the lumber industry and other related land management and user organizations. Annual sawmill inspections reduce chances of forest fires starting. The State Forester is responsible for conducting the hazard reduction (slash disposal) program as it applies to privately owned and State lands.

On State-owned forest areas the State Forester provides fire presuppression in the way of organizing, training, and equipping fire suppression crews. On forest and rural areas other than areas directly under State Forestry Protection, the State Forester's organization achieves these same objectives for private lands through cooperation with other agencies with fire control responsibilities, and with county governments.

When fires occur on the State Forest lands and in areas under direct responsibility, State Forestry crews and equipment combat the fires. In other areas the State Forestry organization cooperates, and, especially in county situations, will, at the request of the county, furnish fire suppression back-up according to agreement in the form of overhead, fire fighting equipment, and finances.

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## ANALYSIS OF PROGRAMS

Objectives: Through the use of effective fire prevention programs, prevent as many fires as possible by reducing the risks and hazards. To provide, as rapidly as possible, adequate organized forest fire control to all State and privately owned forest and related watershed lands within the State.

Target Groups: Certain aspects of the State Forester's fire prevention program are aimed at specific groups--such as sawmill operators, recreationists, tourists, and especially those owning or using the forest and watershed lands.

The Hazard Reduction program is aimed at the forest landowner who is selling timber, at the operator who is logging it, at the trucker who is hauling the logs, and at the mill operator who is purchasing them.

The presuppression portion of the fire program is aimed at the organizations responsible for fire protection, and at the individuals who will be assigned to carry out fire suppression responsibilities in case of fire. These may be within the State Forestry organization, or in cooperating agencies.

Suppression assistance is aimed directly at those responsible for putting fires out--and may be the fire boss of the line, the county sheriff or firewarden directing operations, or the county commissioners who may be ultimately responsible.





## ANALYSIS OF PROGRAMS

Achievements: The actual effectiveness of Forest Fire Prevention Campaigns is not easily measured because weather conditions so greatly influence fire causes and behavior. However, it is known that both the number and the percentage of fires caused by man has been steadily decreasing since the inception of the CFFP Program in 1943--and Montana has been a part of this program since that time.

As headquarters for an organization having State-wide responsibilities for forest fire control on State and Private lands, the development of the Fire Coordination Center in the State Forester's Office is a major achievement. This Center permits a complete picture of the fire situation at all times.

During the year 1970 the State Forestry organization took over the forest fire protection responsibilities of the Northern Montana Forestry Association.

1970 saw the State Forester install aerial detection as a cheaper and more thorough fire detection system to cover lands in western Montana under his direct protection.

Fire fighting teams, primarily for use in areas of State Forestry responsibility but available through the State Forester to other agencies in emergency, were developed, trained, and equipped at both the Swan River Youth Forest Camp and the Montana State Prison.

The Bridger Forest Fire Protection District near (NE) Bozeman was formed to provide a high level fire protection to 56,940 acres of private land, 54 owners.



Fourteen counties signed cooperative agreement with the State Forester as part of the State-wide fire protection program. This amounts to 1.5 million acres of classified forest land and 4 to 5 million acres total. Equipment in the form of hand tools and 14 excess military vehicles converted to fire fighting units were distributed to the counties. Fire Training was given each organization accepting any of the fire fighting units.

Fire Report 1970 fiscal year:

NUMBER AND AREA OF FIRES BY CAUSE 1969 SEASON. CM-2 AREA 6,747,426 ACRES

Cause	Number of Fires by Responsibility					Area Burned Acres
	Railroad	Timber Operation	Recreation	Other	Total	
Lightning					113	729.8
Campfire			16	5	21	8.3
Smoking			18	16	34	172.2
Debris Burning				34	34	350.6
Incendiary				15	15	6.0
Machine Use	119	5	4	13	141	276.7
Miscellaneous		5		36	41	172.4
TOTAL	119	10	38	119	399	1,716.0

Cost and Performance Summary: The following data is presented in summary form. Additional supporting data is available upon request:

	<u>FISCAL YEARS</u>		
	<u>Historic 1968-69</u>	<u>Current 1969-70</u>	<u>Projected 1970-71</u>
COST	\$ 656,206	\$ 744,883	\$ 1,035,514



INSTITUTION FORESTRY WORK

Services Provided. The State Forester provides a work program for the Swan River Youth Forest Camp, located on the Swan River State Forest.

Objectives. The objectives of the work program are to do everything possible in the work program, supervised by the State Forester, to encourage the members of the Youth Camp to learn good work habits and thus contribute to their rehabilitation as members of our society; to effectively use the various tools used in woods work; to accomplish desirable work programs on state lands, such as tree thinning, and pruning, forest planting, campground cleanup and maintenance, road and trail maintenance.

Target Group. The youths assigned to the Swan River Youth Forest Camp make up the target group of this program.

Achievements. Through daily contact with the State Forestry foremen who have a real interest in the boys, and who appreciate the value of work, many of the boys have learned something--and some have learned very much--about how to fit into society as useful citizens. The physical achievements of the program in the way of production are explained in MAJOR ACCOMPLISHMENTS.

Cost and Performance Summary: The following data is presented in summary form. Additional supporting data is available upon request.

	<u>FISCAL YEARS</u>		
	<u>Historic 1968-69</u>	<u>Current 1969-70</u>	<u>Projected 1970-71</u>
COST	\$ 46,213	\$ 38,829	\$ 44,550





F I N A N C I A L   R E C A P

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OFFICE OF MONTANA STATE FORESTER

PROGRAM COSTS BY OBJECT OF  
EXPENDITURE AND SOURCE OF FUNDING  
1969-1970 FISCAL YEAR

PROGRAM: DEPARTMENT OPERATIONS

OBJECT OF EXPENDITURE

Personal Services	\$ 105,620
Operations	31,895
Capital	1,937
Grants and Benefits	<u>-0-</u>
Total Expended	\$ 139,452

SOURCE OF FUNDING

General Fund	<u>\$ 139,452</u>
Total Funding	\$ 139,452



F I N A N C I A L   R E C A P

OFFICE OF MONTANA STATE FORESTER

PROGRAM COSTS BY OBJECT OF  
EXPENDITURE AND SOURCE OF FUNDING  
1969-1970 FISCAL YEAR

PROGRAM:    FOREST MANAGEMENT

OBJECT OF EXPENDITURE

Personal Services	\$ 258,657
Operations	61,012
Capital	22,372
Grants and Benefits	<u>58</u>
Total Expended	\$ 342,099

SOURCE OF FUNDING

General Fund	\$ 184,823
Earmarked Revenue	104,028
Federal and Private Revenue	<u>53,248</u>
Total Funding	\$ 342,099



# FINANCIAL RECAP

## OFFICE OF MONTANA STATE FORESTER

### PROGRAM COSTS BY OBJECT OF EXPENDITURE AND SOURCE OF FUNDING 1969-1970 FISCAL YEAR

PROGRAM: FOREST AND RANGE FIRE PREVENTION

#### OBJECT OF EXPENDITURE

Personal Services	\$ 224,337
Operations	184,515
Capital	36,581
Grants and Benefits	<u>299,450</u>
Total Expended	\$ 744,883

#### SOURCE OF FUNDING

General Fund	\$ 256,376
Earmarked Revenue	175,671
Federal and Private Revenue	85,591
Agency Fund	222,960
Bond Proceeds and Insurance Clearance	<u>4,285</u>
Total Funding	\$ 744,883





FINANCIAL RECAP

OFFICE OF MONTANA STATE FORESTER

PROGRAM COSTS BY OBJECT OF  
EXPENDITURE AND SOURCE OF FUNDING  
1969-1970 FISCAL YEAR

PROGRAM: INSTITUTION FORESTRY WORK

OBJECT OF EXPENDITURE

Personal Services	\$ 33,364
Operations	3,337
Capital	2,128
Grants and Benefits	<u>-0-</u>
Total Expended	\$ 38,829

SOURCE OF FUNDING

General Fund	<u>\$ 38,829</u>
Total Funding	\$ 38,829



OFFICE OF MONTANA STATE FORESTER

PROGRAM COSTS BY OBJECT OF  
EXPENDITURE AND SOURCE OF FUNDING

1969-1970 FISCAL YEAR

SUMMARY OF ALL PROGRAMS

OBJECT OF EXPENDITURE

Personal Services	\$ 621,978
Operations	280,759
Capital	63,018
Grants & Benefits	299,508
	<hr/>
Total Expended	\$ 1,265,263

SOURCE OF FUNDING

General Fund	\$ 619,480
Earmarked Revenue Fund-Timber Stand Improvement	68,237
Earmarked Revenue Fund-Slash & Brush	175,671
Earmarked Revenue Fund-Nursery	35,791
Federal & Private Revenue Fund-Clarke McNary	97,591
Federal & Private Revenue Fund-Coop. Forest Mgt.	41,248
Federal & Private Grant Clearance Fund-Fire Prot.	222,960
Bond Proceeds and Insurance Fund	4,285
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Total Funding	\$ 1,265,263



OFFICE OF MONTANA STATE FORESTER

ANALYSIS OF PROGRAMS

<u>Program</u>	<u>FISCAL YEARS</u>		
	Historic <u>1968-69</u>	Current <u>1969-70</u>	Projected <u>1970-71</u>
Department Operations	\$ 125,999	\$ 139,452	\$ 153,228
Forest Management	269,689	342,099	379,710
Forest & Range Fire Protection	656,206	744,883	1,035,514
Institution Forestry Work	46,213	38,829	44,550





OFFICE OF MONTANA STATE FORESTER

1970 FISCAL YEAR REPORT  
CROSSOVER MATRIX

NEW PROGRAM STRUCTURE

FISCAL YEAR 1970

<u>Present Program Structure</u>	<u>Program Costs 1969-70 FY</u>	<u>Department Operations</u>	<u>Forest Management</u>	<u>Forest &amp; Range Fire Protection</u>	<u>Institution Forestry Work</u>
Administration	\$ 139,452	\$ 139,452	\$	\$	\$
Cooperative Forest Mgt.	86,242		86,242		
Fire Protection	552,625			552,625	
Nursery	64,096		64,096		
Slash and Brush	192,258			192,258	
Forest Management	191,761		191,761		
Youth Forest Camp	<u>38,829</u>	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>38,829</u>
Total	\$1,265,263	\$ 139,452	\$ 342,099	\$ 744,883	\$ 38,829

